PIXMA iP4000R

SERVICE / REFERENCE MANUAL

Canon

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PIXMA iP4000R
REFERENCE MANUAL

This reference manual describes differences from the base model, PIXMA iP4000.

When referring to the PIXMA iP4000 Service Manual, Service Parts Number in it may be different from PIXMA iP4000 model. Please refer to the PIXUS iP4100R/PIXMA iP4000R Parts Catalog (QY8-9068-D0C).

QY8-13A3-000

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Part 1 MAINTENANCE

1. MAINTENANCE

1.1 Adjustment, Periodic Maintenance, Periodic Replacement Parts, and Replacement Consumables by Service Engineer

(1) Adjustment (added to the iP 4000 base model)

Adjustment	Timing	Purpose	Tool	Approx. time
Network setting information print (NIC EEPROM information print)	NIC BOARD replacement	To confirm operations	None.	1 min.

2. LIST OF ERROR DISPLAY / INDICATION

2.2 Service Call Errors (added to the iP4000 base model)

LED alternate blinking in orange and green	Error	Solution (Replacement of listed parts, which are likely to be faulty)
18 times	NIC BOARD error [6550]	NIC BOARD ASS'Y (QK1-0867-000)

2.4 Troubleshooting by Symptom

	Symptom	Solution	Remarks
Faulty operation	Printing is not possible with wireless LAN.	1) Perform network setting information print. When printing is not possible. -> Replace the NIC BOARD. When printing is possible. -> Proceed to 2). 2) Perform printing with the wireless LAN I/F. When printing is not possible. -> Replace the NIC BOARD. (Wireless reception component failure on the NIC BOARD) When printing is possible. -> Re-confirm network setting (user's environment).	

3. REPAIR

3.1 Notes on Service Part Replacement (and Disassembling/Reassembling)

Service part	Notes on replacement	Adjustment/settings	Operation check
NIC BOARD ASS'Y (QK1-0867-000)			- Network setting information print - Printing with wireless LAN I/F (After printing, EEPROM initialization of NIC BOARD is necessary.)

Note: If the NIC BOARD is replaced, user network setting information stored in the NIC BOARD is lost. Therefore, it is necessary to inform users that network setting should be performed again to enable the printer to be used under the user's environment.
<How to re-perform network setting>

a. Performing Easy Install
   Application software, User's Guide, etc, are also re-installed.
b. Custom Install
   The following items are selected as installation.
   - Printer driver
   - Network Setup
   - PIXUS Network Tool

3.2 Special Notes on Repair Servicing

(5) User mode (added to the iP4100)

Function	Procedures	Remarks
Network setting information print (NIC EEPROM information printing)	See <Standalone printer operation> below.	
Initialization of network setting information	See <Standalone printer operation> below.	Can also be performed from PIXUS Network Tool

<Standalone printer operation>

1) Turn on the printer.
2) Press and hold the Resume/Cancel button until the LED blinks the specified number of times listed in the table below, and release it. The operation starts.

LED blinking	Operation	Remarks
6 times	Network setting information printing	Set a sheet of A4/LTR-sized plain paper in the sheet feeder or cassette. (The Paper Feed switch controls the paper feeding location.)
10 times	Initialization of network setting information	
10 times or more	Unspecified	

For details on the network setting information printing and items cleared by initialization, see "3.4. Verification Items (1) Network setting information (NIC EEPROM information) print".

3.4 Verification Items

(1) Network setting information (NIC EEPROM information) print

<EEPROM information sample>

Canon iP_4000R Network Configuration Page

Printer:	iP_4000R
Firmware Version:	1.01
Wireless LAN:	Enabled
Standard:	IEEE 802.11g
Destination:	1B
MAC Address:	xx-xx-xx-xx-xx-xx
Network Type:	Infrastructure
SSID:	xxxxx
Channel:	10
Encription:	OFF
Authentication:	Open System
Attached Information:	
Link Status:	Active
Signal Strength:	63%
Link Quality:	56%
Transmission Rate:	34Mbps
TCP/IP	
Mode:	Auto
IP Address:	xxx.xxx.x.xxx
Subnet Mask:	xxx.xxx.xxx.x
Default Gateway:	x.x.x.x
Wired LAN	Disable
MAC Address:	xx-xx-xx-xx-xx-xx
Link Status:	Inactive
Transmission Rate:	
TCP/IP	
Mode	
IP Address:	
Subnet Mask:	
Default Gateway:	
Printer Access Control	
MAC Address:	OFF
IP Address:	OFF
Admin Password:	OFF
Device Status:	Available
	E

<EEPROM information contents>

Print items: List item for network setting print
Contents: Meaning of list items
Settable values: Settable values for users
Default values: Values at shipment from the plant
Items set to default values: Items re-set to the factory values (at shipment) by initialization

	Print items	Contents	Settable values	Default values	* Items set to default values
	Printer	Printer name	-	IP_4100R (Japan) IP_4000R (Overseas)	
	Firmware Version	NIC firmware version	-	[Logic Board-specific value. fixed]	
Wireless LAN setting information	Wireless LAN	Wireless LAN enabled/disabled	Enabled/Disabled	Enabled	O
	Standard	Compliant wireless LAN standard	-	IEEE 802.11g[fixed]	
	Destination	Corresponding channel list	-	1B [fixed]	
	MAC Address	MAC address for wireless LAN on NIC board	-	[NIC BOARD-specific value. Fixed]	
	Network Type	Operation mode of wireless LAN	-	Infrastructure [fixed]	
	SSID	Set SSID When ANY is set, current SSID is printed in parentheses.	Optional (can be freely set.)	BJNPSETUP	O
	Channel	Current channel When inactive, left blank		10	O
	Encryption	Current encryption method	OFF/WEP/TKIP	OFF	O
	Authentication	Current authentication method	Auto /Open System /Shared Key/WPA-PSK	Open System	O
	Attached Information	Attached information regarding encryption and authentication	WEP setting: 64/128bit, ASCII/Hex, Key* * Key set by user is displayed. WPA-PSK setting: Character Password /64 Hex digits	[Blank]	O
	Link Status	Status of wireless LAN When wireless LAN is invalid, if nonexistent SSID is set, status becomes Inactive. Other than this case, status becomes Active.	-	[Varies depending on connection status.]	
	Signal Strength	Signal strength: 0 - 100 % When inactive, 0 %	-	[Varies depending on communication environment.]	
	Link Quality	Communication quality: 0 - 100 % When inactive, 0 %	-	[Varies depending on communication environment.]	
	Transmission Rate	Current wireless LAN speed: 1/2/5.5/6/9/11/12/18/24/36/48/56 Mbps When inactive, left blank	-	[Varies depending on the communicating devices.]	
TCP/IP(wireless)	Mode	IP address setting method When disabled, left blank	Auto/Manual	Auto	O
	IP Address	Current IP address When disabled, left blank	0.0.0.0 - 255.255.255.255	192.168.1.123	O
	Subnet Mask	Current Subnet mask When disabled, left blank	0.0.0.0 - 255.255.255.255	255.255.255.0	O
	Default Gateway	Current default Gateway When disabled, left blank	0.0.0.0 - 255.255.255.255	0.0.0.0	O

Wired LAN setting information	Wired LAN	Wired LAN enabled/disabled	Enabled/Disabled	Enable	
	MAC Address	MAC address for wired LAN on NIC board	-	[NIC BOARD-specific value. Fixed]	
	Link Status	Status of wired LAN When wired LAN is invalid, if nonexistent SSID is set, status becomes Inactive. Other than this case, status becomes Active.	-	Inactive	
	Transmission Rate	Current wireless LAN speed 10/100 Mbps When inactive, left blank	-		
TCP/IP (wired)	Mode	IP address setting method When disabled, left blank	Auto/Manual	Auto	O
	IP Address	Current IP address When disabled, left blank	0.0.0.0 - 255.255.255.255	192.168.2.123	O
	Subnet Mask	Current Subnet mask When disabled, left blank	0.0.0.0 - 255.255.255.255	255.255.255.0	O
	Default Gateway	Current default Gateway When disabled, left blank	0.0.0.0 - 255.255.255.255	0.0.0.0	O
Security	MAC Address	MAC address filtering setting	ON/OFF	OFF	O
	IP Address	IP address filtering setting	ON/OFF	OFF	O
Other	Admin Password	Admin password setting	ON/OFF	OFF	O
	Device Status	Printing of device status When error occurs, error code is displayed. Other than this case, Available is displayed.		Available	O
		Connection history [hexadecimal number] See Note 1 below.		0	O

Note 1: How to read the Connection history (in the Other section)

Transform hexadecimal number into binary (4 bit), and apply it to the following.

Bit3: Network setting history (has: 1, not have: 0)
Bit2: Network printing history (has: 1, not have: 0)
Bit1: USB setting history (has: 1, not have: 0)
Bit0: USB printing history (has: 1, not have: 0)

Ex, In setting print, “E” is displayed:

Transform “E” displayed in hexadecimal number into binary number -> “1110”

-> Bit3: 1
Bit2: 1
Bit1: 1
Bit0: 0

-> Network setting history: Has
Network printing history: Has
USB setting history: Has
USB printing history: Not have